STATEMENT DE-382

WHAT IS DARWINISM? Why Science Clings to a Fractured Paradigm [1]

by Phillip E. Johnson

Summary

The debate between creationism and Darwinism is often depicted as a dispute between naive biblical literalists, who ignore the overwhelming evidence for evolution, and scientifically enlightened intellectuals. But this is a caricature that serves the purpose of helping to perpetuate a world view hostile to Christian faith: atheistic naturalism. The debate hinges on five key terms: creationism, evolution, science, religion, and truth. Instead of trying to Christianize evolution we ought instead to challenge the assumption that atheistic naturalism is true.

The popular television game show *Jeopardy* reverses the usual order of things. Instead of being asked a question to which they must supply the answer, contestants are given the answer and asked to provide the appropriate question. This format suggests an insight that is applicable to law, to science, and indeed to just about everything. More important than knowing all the answers is knowing what question is being asked.

That insight is the starting point for my inquiry into Darwinian evolution and its relationship to creation, because Darwinism is the answer to two very different kinds of questions. First, Darwinian theory tells us how a certain amount of diversity in life forms can develop once we have various types of complex living organisms already in existence. If a small population of birds happens to migrate to an isolated island, for example, a combination of inbreeding, mutation, and natural selection may cause this isolated population to develop different characteristics from those possessed by the ancestral population on the mainland. When the theory is understood in this limited sense, Darwinian evolution is uncontroversial and has no important philosophical or theological implications.

Evolutionary biologists are not content merely to explain how variation occurs within limits. They aspire to answer a much broader question — how complex organisms like birds, flowers, and human beings came to exist at all. The Darwinian answer to this second question is that the creative force that produced complex plants and animals is essentially the same as the mechanism producing variations in flowers, insects, and domestic animals before our very eyes. In the words of Ernst Mayr, the dean of living Darwinists, "Transspecific evolution [i.e., macroevolution] is nothing but an extrapolation and magnification of the events that take place within populations and species."

Neo-Darwinian evolution in this broad sense is a philosophical doctrine so lacking in empirical support that Mayr's successor at Harvard, Stephen Jay Gould, in a reckless moment once pronounced it "effectively dead." Yet neo-Darwinism is far from dead. On the contrary, it is continually proclaimed in textbooks and the media as unchallengeable fact. How does it happen that so many scientists and intellectuals, who pride themselves on their empiricism and open-mindedness, continue to accept an unempirical theory as scientific fact?

DEFINING THE ISSUES

The answer to that question lies in the definition of five key terms — creationism, evolution, science, religion, and truth. Once we understand how these words are used in evolutionary discourse, the continued ascendancy of neo-

Darwinism will be no mystery, and we need no longer be deceived by claims that the theory is supported by "overwhelming evidence." As we shall see, there are powerful vested interests in this area that thrive in the midst of ambiguity and confusion. Those who insist on defining terms precisely and using them consistently may find themselves regarded with suspicion and hostility, and even accused of being enemies of science.

Creationism

The first word is *creationism*, which means simply a belief in creation. In Darwinist usage, which dominates not only popular and professional scientific literature but also the media, a creationist is a person who takes the creation account in the Book of Genesis as true in the most literal sense. The earth was created in a single week of six 24-hour days no more that 10,000 years ago; the major features of the geological record were produced by Noah’s flood; and there have been no major innovations in the forms of life since the beginning. It is a major theme of Darwinist propaganda that the only persons who have any doubts about Darwinism are young-earth creationists of this sort, who are always portrayed as rejecting the clear and convincing evidence of science to preserve a religious prejudice. The implication is that citizens of modern society are faced with a choice that is really no choice at all. Either they reject science altogether and retreat to a premodern world view, or they believe everything the Darwinists tell them.

In a broader sense, however, a creationist is simply a person who believes in the existence of a creator who brought about the world and its living inhabitants for a purpose. Whether the process of creation took a single week or billions of years is relatively unimportant from a philosophical or theological standpoint. Creation by gradual processes over geological ages may create problems for biblical interpretation, but it creates none for the basic principle of theistic religion. Creation in this broad sense, according to a 1991 Gallup poll, is the creed of 87 percent of Americans. Is creation in this sense consistent with evolution?

Evolution

The answer is no, when *evolution* is understood in the Darwinian sense. To Darwinists evolution means *naturalistic* evolution, an insistence that science must assume that the cosmos is a closed system of material causes and effects, which can never be influenced by anything outside of material nature, such as God. In the beginning, an explosion of matter created the cosmos, and undirected, naturalistic evolution produced everything that followed. Thus, no intelligent purpose guided evolution. If intelligence exists today, that is only because it has itself evolved through purposeless material processes.

At bottom the theory must be based on chance, because that is what is left when we have ruled out everything involving intelligence or purpose. But theories invoking *only* chance are not credible. One thing everyone acknowledges is that living organisms are enormously complex — far more so than, say, a computer or an airplane. That such complex entities came into existence simply by chance is clearly less credible than that they were designed and constructed by a creator. To back up their claim that this appearance of intelligent design is an illusion, Darwinists therefore need to provide a building force that is mindless and purposeless. Natural selection is by far the most plausible candidate.

If we assume that random genetic mutations provided the new genetic information needed, say, to give a small mammal a start towards wings, and if we assume that each tiny step in the process of wing-building gave the animal an increased chance of survival, then natural selection ensured that the favored creatures would thrive and reproduce. It logically follows that wings can and will appear as if by the plan of a designer. Of course, if wings or other improvements do not appear, the theory explains their absence just as well. The needed mutations didn’t arrive, or "developmental constraints" closed off certain possibilities, or natural selection favored something else. There is no requirement that any of this speculation be confirmed by either experimental or fossil evidence. To Darwinists just being able to imagine the process is sufficient to confirm that something like that must have happened.

Biologist Richard Dawkins calls the process of creation by mutation and selection "the blind watchmaker," by which he means that a purposeless, materialistic designing force substitutes for the "watchmaker" deity of natural theology. The creative power of the blind watchmaker is supported only by very slight evidence, such as the famous example of a moth population in which the percentage of dark moths increased during a period when the birds were better

able to see light moths against the smoke-darkened background trees. This may be taken to show that natural selection can change organisms, but not that it can create organisms that were not already in existence.

Even such slight evidence is more than sufficient, however, because evidence is not really necessary to prove something that is practically self-evident. The existence of a potent blind watchmaker follows deductively from the philosophical premise that nature had to do its own creating. There can be argument about the details, but if God was not in the picture something very much like Darwinism simply has to be true, regardless of the evidence.

Science

That brings me to my third term, *science.* We have already seen that Darwinists assume as a first principle that the history of the cosmos and its life forms is fully explicable on naturalistic principles. This reflects a philosophical doctrine called scientific naturalism, a necessary consequence of the inherent limitations of science. What scientific naturalism does, however, is transform the limitations of science into limitations on reality, in the interest of maximizing the explanatory power of science and its practitioners. It is, of course, entirely possible to study organisms scientifically on the premise that they were all created by God, just as scientists study airplanes and even works of art without denying that these objects are intelligently designed. The problem with allowing God a role in the history of life is not that science would cease, but rather that scientists would have to acknowledge the existence of something important that is outside the boundaries of natural science. For scientists who want to be able to explain everything, this is an intolerable possibility.

The second feature of scientific naturalism that is important for our purpose is its set of rules governing the criticism and replacement of a paradigm. A paradigm is a general theory, like the Darwinian theory of evolution, which has achieved general acceptance in the scientific community. The paradigm unifies the various specialties that make up the research community, and guides research in all of them. Thus, zoologists, botan-ists, geneticists, molecular biologists, and paleontologists all see their research as aimed at filling out the details of the Darwinian paradigm.

If molecular biologists see a pattern of apparently neutral mutations, which have no apparent effect on an organism’s fitness, they must find a way to reconcile their findings with the paradigm’s requirement that natural selection guides evolution. This they can do by postulating a sufficient quantity of invisible adaptive mutations, supposedly accumulated by natural selection. Similarly, if paleontologists see new fossil species appearing suddenly in the fossil record, and remaining basically unchanged thereafter, they must perform whatever contortions are necessary to force this recalcitrant evidence into a model of incremental change through the accumulation of micromutations.

Supporting the paradigm may even require what in other contexts would be called deception. As Niles Eldredge candidly admitted, "We paleontologists have said that the history of life supports [the story of gradual adaptive change], all the while knowing it does not."[2] Eldredge explained that this pattern of misrepresentation occurred because of "the certainty so characteristic of evolutionary ranks since the late 1940s, the utter assurance not only that natural selection operates in nature, but that we know precisely how it works." This certainty produced a degree of dogmatism that Eldredge says resulted in the relegation of paleontologists to the "lunatic fringe" who reported that "they saw something out of kilter between contemporary evolutionary theory, on the one hand, and patterns of change in the fossil record on the other."[3] Under the circumstances, prudent paleontologists understandably swallowed their doubts and supported the ruling ideology. To abandon the paradigm would be to abandon the scientific community; to ignore the paradigm and just gather the facts would be to earn the demeaning label of "stamp collector" (i.e., one who does not theorize).

As many philosophers of science have observed, the research community does not abandon a paradigm in the absence of a suitable replacement. This means that negative criticism of Darwinism, however devastating it may appear to be, is essentially irrelevant to the professional researchers. A critic may point out, for example, that the evidence that natural selection has any creative power is somewhere between weak and nonexistent. That is perfectly true, but to Darwinists the more important point is this: If natural selection did not do the creating, what did? "God" is obviously unacceptable, because such a being is unknown to science. "We don’t know" is equally unacceptable, because to admit ignorance would be to leave science adrift without a guiding principle. To put the problem in the most practical terms: it is impossible to write or evaluate a grant proposal without a generally accepted theoretical framework.

The paradigm rule explains why Gould's acknowledgment that neo-Darwinism is "effectively dead" had no significant effect on the Darwinist faithful, or even on Gould himself. Gould made that statement in a paper predicting the emergence of a new general theory of evolution, one based on the macromutational speculations of the Berkeley geneticist Richard Goldschmidt.[4] When the new theory did not arrive as anticipated, the alternatives were either to stick with Ernst Mayr's version of neo-Darwinism or to concede that biologists do not know of a naturalistic mechanism that can produce biological complexity. That was no choice at all. Gould had to beat a hasty retreat back to classical Darwinism to avoid giving aid and comfort to the enemies of scientific naturalism, including those disgusting creationists. Having to defend a dead theory tooth and nail can hardly be a satisfying activity, and it is no wonder that Gould lashes out with fury at people such as myself who call attention to his predicament.[5] I do not mean to ridicule Gould, because I have a genuinely high regard for the man as one of the few Darwinists who has recognized the major problems with the theory and reported them honestly. His tragedy is that he cannot admit the clear implications of his own thought without effectively resigning from science.

The continuing survival of Darwinist orthodoxy illustrates Thomas Kuhn's famous point that the accumulation of anomalies never in itself falsifies a paradigm, since "to reject one paradigm without substituting another is to reject science itself."[6] This practice may be appropriate as a way of carrying on the professional enterprise called science, but it can be grossly misleading when it is imposed on persons who are asking questions other than the ones scientific naturalists want to ask. Suppose, for example, that I want to know whether God really had something to do with creating living organisms. A typical Darwinian response is that there is no reason to invoke supernatural action because Darwinian selection was capable of performing the job. To evaluate that response, I need to know whether natural selection really has the fantastic creative power attributed to it. It is not a sufficient answer to say that scientists have nothing better to offer. The fact that scientists don't like to say "we don't know" tells me nothing about what they really do know.

I am not suggesting that scientists have to change their rules about retaining and discarding paradigms. All I want them to do is to be candid about the disconfirming evidence and admit, if it is the case, that they are hanging on to Darwinism only because they prefer a shaky theory to having no theory at all. What they insist on doing, however, is to present Darwinian evolution to the public as a fact that every rational person is expected to accept. If there are reasonable grounds to doubt the theory such dogmatism is ridiculous, whether or not the doubters have a better theory to propose.

To believers in creation, Darwinists seem thoroughly intolerant and dogmatic when they insist that their own philosophy must have a monopoly in the schools and the media. Darwinists do not see themselves that way, of course. On the contrary, they often feel aggrieved when creationists (in either the broad or narrow sense) ask to have their own arguments heard and considered. To insist that schoolchildren be taught that Darwinian evolution is a fact is in their minds merely to protect the integrity of science education; to present the other side of the case would be to allow fanatics to force their opinions on others. Even college professors have been forbidden to express their doubts about Darwinian evolution in the classroom, and it seems widely believed that the Constitution not only permits but actually requires such restrictions on academic freedom.[7]

Religion

To explain this bizarre situation, we must define our fourth term: *religion*. Suppose that a skeptic argues that evidence for biological creation by natural selection is obviously lacking, and that in the circumstances we ought to give serious consideration to the possibility that the development of life required some input from a preexisting, purposeful creator. To scientific naturalists this suggestion is "creationist" and therefore unacceptable in principle, because it invokes an entity unknown to science. What is worse, it suggests the possibility that this creator may have communicated in some way with humans, perhaps with real prophets — persons with a genuine knowledge of God. Such persons could be dangerous rivals for the scientists as cultural authorities.

Naturalistic philosophy has worked out a strategy to prevent this problem from arising: it labels naturalism as science and theism as religion. The former is then classified as knowledge, and the latter as mere belief. The distinction is of critical importance, because only knowledge can be objectively valid for everyone; belief is valid only for the believer, and should never be passed off as knowledge. The student who thinks that 2 and 2 make 5, or that water is not made up of hydrogen and oxygen, or that the theory of evolution is not true, is not expressing a minority viewpoint. He or she is ignorant, and the job of education is to cure that ignorance and to replace it with

knowledge. Thus, students in the public schools must be taught at an early age that "evolution is a fact," and as time goes by they will gradually learn that evolution means naturalism.

The proposition that God was in any way involved in our creation is effectively outlawed, since naturalistic evolution is by definition in the category of scientific knowledge and what contradicts knowledge is implicitly false, or imaginary. That is why it is possible for scientific naturalists in good faith to claim on the one hand that their science says nothing about God, and on the other to claim that they have said everything that can be said about God. In naturalistic philosophy both propositions are at bottom the same. All that needs to be said about God is that there is nothing to be said of God, because on that subject we can have no knowledge.

Truth

Our fifth term is *truth*. Truth as such is not a particularly important concept in naturalistic philosophy. The reason for this is that "truth" suggests an unchanging absolute, whereas scientific knowledge is a dynamic concept. Like life, knowledge evolves and grows into superior forms. What was knowledge in the past is not knowledge today, and the knowledge of the future will surely be far superior to what we have now. Only naturalism itself, and the unique validity of science as the path to knowledge, are absolutes. There can be no criterion for truth outside of scientific knowledge, no mind of God to which we have access.

This way of understanding things persists even when scientific naturalists employ religious-sounding language. For example, the physicist Stephen Hawking ended his famous book *A Brief History of Time* with the prediction that humanity might one day "know the mind of God." This phrasing gives some friends of mine the mistaken impression that he has some attraction to theism. In context, Hawking was not referring to a supernatural eternal agent, but to the possibility that scientific knowledge will eventually become complete and all-encompassing because it will have explained the movements of material particles in all circumstances.

The monopoly of science in the realm of knowledge explains why evolutionary biologists do not find it meaningful to address the question whether Darwinism is true. They will gladly concede that the theory is incomplete and that further research is needed. At any given point in time, however, the reigning theory of naturalistic evolution represents the state of scientific knowledge about how we came into existence. Scientific knowledge is by naturalistic definition the closest approximation of absolute truth available to us. To ask whether this knowledge is true is to miss the point, and to betray a misunderstanding of "how science works."

CHRISTIANS AND DARWINISM

So far I have described the metaphysical categories by which scientific naturalists have excluded the topic of God from rational discussion, and thus ensured that Darwinism’s fully naturalistic creation story is effectively true by definition. There is no need to explain why atheists find this system of thought control congenial. What is more difficult to understand — at least at first — is the strong support Darwinism continues to receive in the Christian academic world. Attempts to investigate the credibility of Darwinist evolution are regarded with little enthusiasm by many leading Christian professors of science and philosophy, even at institutions that are generally regarded as theologically conservative. Given that Darwinism is inherently naturalistic and therefore antagonistic to the idea that God had anything to do with the history of life, and that it plays the central role in ensuring agnostic domination of the intellectual culture, one might have supposed that Christian intellectuals (along with religious Jews) would be eager to find its weak spots.

Instead, the prevailing view among Christian professors has been that Darwinism — or "evolution," as they tend to call it — is unbeatable, and that it can be interpreted to be consistent with Christian belief. In fact Darwinism is unbeatable as long as one accepts the thought categories of scientific naturalism that I have been describing. The problem is that those same thought categories make Christian theism, or any other theism, absolutely untenable. If science has exclusive authority to tell us how life was created, and if science is committed to naturalism, and if science never discards a paradigm until it is presented with an acceptable *naturalistic* alternative, then Darwinism’s position is impregnable within science. Yet the same reasoning that makes Darwinism inevitable also bans God from taking any action within the history of the Cosmos, which makes theism illusory. Theistic naturalism is self-contradictory.

Some hope to avoid the contradiction by asserting that naturalism rules only within the realm of science, and that there is a separate realm called "religion" in which theism can flourish. The problem with this, as we have already seen, is that in a naturalistic culture scientific conclusions are considered to be knowledge, or even fact. What is outside of fact is fantasy, or at best subjective belief. Theists who accommodate scientific naturalism therefore may never affirm that their God is real in the same sense that evolution is real. This rule is essential to the entire naturalistic mindset that produced Darwinism in the first place.

If God exists He could certainly work through scientifically explainable processes if that is what He wanted to do, but He could also create by some means totally outside the ken of our science. Once we put Him into the picture, there is no good reason to attribute the creation of biological complexity to random mutation and natural selection. Direct evidence that these mechanisms have substantial creative power is not to be found in nature, the laboratory, or the fossil record. An essential step in the reasoning that establishes that Darwinian selection created the wonders of biology, therefore, is that nothing else was available. Theism says that something else was available.

Perhaps the contradiction is hard to see when it is stated at an abstract level, so I will give a more concrete example. Persons who advocate the compromise position called "theistic evolution" are in my experience always vague about what they mean by "evolution." They have good reason to be vague. As we have seen, Darwinian evolution is by definition unguided and purposeless, and such evolution cannot in any meaningful sense be theistic. For evolution to be genuinely theistic it must be guided by God, whether this means God programmed the process in advance or stepped in from time to time to push it in the right direction. To Darwinists evolution guided by God is a soft form of creationism — that is to say, it is not evolution at all. To repeat, this understanding goes to the very heart of Darwinist thinking. Allow a preexisting supernatural intelligence to guide evolution, and this omnipotent being can do a whole lot more than that.

Of course, theists can think of evolution as God-guided whether naturalistic Darwinists like it or not. One problem with having a private definition for theists, however, is that the scientific naturalists have the power to decide what the term "evolution" means in public discourse, including the science classes in the public schools. If theistic evolutionists broadcast the message that evolution as they understand it is harmless to theistic religion, they are misleading their constituents unless they add a clear warning that the version of evolution advocated by the entire body of mainstream science is something else altogether. That warning is never clearly delivered, because the main point of theistic evolution is to preserve peace with the mainstream scientific community. Theistic evolutionists therefore unwittingly serve the purposes of the scientific naturalists by helping persuade the religious community to lower its guard against the incursion of naturalism.

We are now in a position to answer the question, What is Darwinism? Darwinism is a theory of empirical science only at the level of microevolution, where it provides a framework for explaining phenomena such as the diversity that arises when small populations become reproductively isolated from the main body of the species. As a general theory of biological creation Darwinism is not empirical at all. Rather, it is a necessary implication of a philosophical doctrine called scientific naturalism, which is based on the nonscintific assumption that God was always absent from the realm of nature. Evolution in the Darwinian sense is inherently antithetical to theism, although evolution in some entirely different and nonnaturalistic sense could conceivably (if not demonstrably) have been God’s chosen method of creation.

To return to the game of *Jeopardy* with which we started, let us say that Darwinism is the answer. What, then, is the question? The question is: "How must creation have occurred if we assume that God had nothing to do with it?" Theistic evolutionists err in trying to Christianize the answer to a question that comes straight out of the agenda of scientific naturalism. What we need to do instead is challenge the assumption that the only questions worth asking are the ones that assume that naturalism is true.

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NOTES

[1]This article was originally delivered as a lecture at a symposium at Hillsdale College in November 1992. Papers from the Symposium were published in the collection, *Man and Creation: Perspectives on Science and Theology,*

ed. Michael Bauman (Hillsdale, MI: Hillsdale College Press, 1993).
[2]Niles Eldredge, *Time Frames* (Portsmouth, NH: Heinemann, 1986), 144.
[3]Ibid., 93.
[4]Stephen Jay Gould, "Is a New and General Theory of Evolution Emerging?" *Paleobiology* 6 (1980): 119-30, reprinted in Maynard Smith, ed., *Evolution Now: A Century after Darwin* (New York: W. H. Freeman, 1982).
[5]See Stephen Jay Gould, "Impeaching a Self-Appointed Judge," *Scientific American*, July 1992, 118-22. *Scientific American* refused to publish my response, but the response did appear in the March 1993 issue of *Perspectives on Science and Christian Faith: The Journal of the American Scientific Affiliation*.
[6]Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2d ed. (Chicago: University of Chicago Press, 1970), 79.
[7]This issue is discussed in my article, "What (If Anything) Hath God Wrought?" at the web site (http://www.arn.org).